

## EAST Search History

| Ref # | Hits  | Search Query  | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|-------|---|--|------------------|---------|------------------|
| S31   | 29533 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2007/03/06 10:07 |
| S34   | 7874  | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S35   | 2413  | 141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S36   | 471   | 261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S37   | 2607  | 261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S38   | 7161  | 261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S39   | 29603 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S40   | 2013  | (118/723e.ccls. or 118/723er.ccls. or 156/345.43-345.47.ccls.)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S41   | 9736  | 118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S42   | 7874  | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |
| S43   | 2413  | 141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR               | ON      | 2005/06/21 14:03 |

## EAST Search History

|     |       |   |  |    |     |                  |
|-----|-------|---|--|----|-----|------------------|
| S44 | 471   | 261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/06/21 14:03 |
| S45 | 2607  | 261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/06/21 14:03 |
| S46 | 7161  | 261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/06/21 14:03 |
| S47 | 29603 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/06/21 14:03 |
| S48 | 31053 | S40 or S47  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/06/21 14:03 |
| S49 | 2013  | (118/723e.ccls. or 118/723er.ccls. or 156/345.43-345.47.ccls.)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/06/21 14:03 |
| S50 | 29603 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/06/21 14:03 |
| S51 | 1     | ("20040163592").PN.   | US-PGPUB   | OR | OFF | 2005/12/08 09:40 |
| S52 | 1     | ("20050229848").PN.   | US-PGPUB   | OR | OFF | 2005/12/08 09:40 |
| S53 | 30010 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/12/08 10:37 |
| S54 | 7928  | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/12/08 10:37 |

## EAST Search History

|     |       |   |  |    |    |                  |
|-----|-------|---|--|----|----|------------------|
| S55 | 2443  | 141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S56 | 477   | 261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S57 | 2612  | 261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S58 | 7187  | 261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S59 | 30010 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S60 | 2085  | (118/723e.ccls. or 118/723er.ccls. or 156/345.43-345.47.ccls.)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S61 | 10026 | 118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S62 | 7928  | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S63 | 2443  | 141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S64 | 477   | 261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S65 | 2612  | 261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S66 | 7187  | 261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |

## EAST Search History

|     |       |   |  |    |    |                  |
|-----|-------|---|--|----|----|------------------|
| S67 | 30010 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S68 | 31514 | S60 or S67  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:37 |
| S69 | 3299  | S68 and (gas with ((inject\$3 or inlet) and (outlet or exhaust\$3)))  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 13:41 |
| S70 | 2265  | S69 and (wafer or substrate)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:48 |
| S71 | 2156  | S70 and (reactor or vessel or chamber)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:45 |
| S72 | 1273  | S69 and ((wafer or substrate or semiconductor) with (table or chuck or support))  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:52 |
| S73 | 1011  | S72 and vacuum  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 10:53 |
| S74 | 62    | S73 and cone  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 11:02 |
| S75 | 126   | S70 and cone  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 11:02 |
| S76 | 64    | S75 not S74   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 11:11 |
| S77 | 108   | S69 and cone not (S74 or S75)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 12:25 |
| S78 | 2     | "5884009".pn.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2005/12/08 12:25 |

## EAST Search History

|     |       |   |  |    |     |                  |
|-----|-------|---|--|----|-----|------------------|
| S79 | 99    | S68 and (cone with gas) not (S75)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2005/12/08 14:26 |
| S80 | 2     | ((("5884009") or ("5685914")).PN.   | USPAT  | OR | OFF | 2005/12/08 14:27 |
| S81 | 3     | (US-6019848-\$ or US-5884009-\$ or US-5685914-\$).did.  | USPAT  | OR | ON  | 2005/12/08 16:04 |
| S82 | 46    | (118/723e.ccls. or 156/345.43-345.47.ccls.) and cone  | USPAT  | OR | ON  | 2005/12/08 16:13 |
| S83 | 57    | SHINRIKI-HIROSHI.IN. OR ARAMI-JUNICHI.IN.   | USPAT  | OR | ON  | 2005/12/08 16:20 |
| S84 | 0     | US-20030143328-\$.DID.  | USPAT  | OR | ON  | 2005/12/08 16:21 |
| S85 | 1     | US-20030143328-\$.DID.  | US-PGPUB   | OR | ON  | 2005/12/08 16:21 |
| S86 | 2     | ("5884009").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | OFF | 2006/05/30 07:57 |
| S87 | 4     | (US-5656123-\$ or US-5685914-\$ or US-6019848-\$ or US-5884009-\$).did.                                   | USPAT  | OR | ON  | 2006/07/13 15:34 |
| S88 | 2     | ("5884009").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | OFF | 2006/08/21 08:02 |
| S89 | 2     | ("5884009").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | OFF | 2006/11/21 16:07 |
| S90 | 2596  | "261"/\$.ccls. and (gas with (liquid or miniscus or vle)).clm.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2006/11/21 17:37 |
| S91 | 41383 | "261"/\$.ccls.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2006/11/21 17:36 |
| S92 | 38787 | S91 not S90   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2006/11/21 17:37 |
| S93 | 2     | ("5884009").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | OFF | 2007/03/06 10:08 |
| S94 | 4     | (US-6019848-\$ or US-5685914-\$ or US-5884009-\$ or US-5656123-\$).did.                                   | USPAT  | OR | ON  | 2007/03/06 10:22 |
| S95 | 2     | ("6435428").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | OFF | 2007/03/06 10:22 |
| S96 | 2     | ("6435428").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB | OR | OFF | 2007/03/07 10:57 |
| S97 | 5     | ("4877757").PN. OR ("6435428").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR                             | OR | ON  | 2007/03/07 11:49 |
| S98 | 6     | (US-5656123-\$ or US-5685914-\$ or US-6435428-\$ or US-6019848-\$ or US-5884009-\$ or US-6886491-\$).did. | USPAT  | OR | ON  | 2007/03/07 12:03 |

## EAST Search History

|      |      |  |   |    |     |                  |
|------|------|--|---|----|-----|------------------|
| S99  | 27   | ("5520742" "5534073" "5578132" "5581874" "5592581" "5628859" "5647945" "5650082" "5681614" "5683518" "5710407").PN. OR ("5884009").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/07 12:09 |
| S100 | 238  | SHINRIKI-HIROSHI.in. or ARAMI-JUNICHI.in. or "ASM Japan".asn.  | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/07 12:14 |
| S101 | 739  | (first and second and third) adj1 (exhaust)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2007/03/07 12:15 |
| S102 | 2353 | (first and second and third) adj1 (exhaust or outlet)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2007/03/07 13:14 |
| S103 | 100  | S101 and (wafer or substrate or semiconductor) and (chamber or reactor or vessel)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2007/03/07 12:39 |
| S104 | 18   | ("4581520" "4654509" "5127365" "5314574" "5414244" "5433791" "5480492").PN. OR ("5998766").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/07 12:20 |
| S105 | 5    | ("20010007244" "20030194493" "4987856" "5366555").PN. OR ("6869641").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/07 12:29 |
| S106 | 24   | ("20010055326" "20020002946" "20020018190" "20020112784" "20020191163" "20020191166" "20030006380" "20030146396" "4998821" "5063582" "5093579" "5138643" "5157700" "5231291" "5559584" "5898477" "5997963" "6317479" "6463119" "6542220" "6555834" "6665046" "6933513" "6987278").PN. OR ("7123343").URPN. | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/07 12:38 |
| S107 | 1463 | S102 not S101  | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/07 12:38 |
| S108 | 93   | S107 and (wafer or substrate or semiconductor) and (chamber or reactor or vessel)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2007/03/07 12:39 |
| S109 | 6    | ((("5884009") or ("20020134308") or ("5900103"))).PN.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB                    | OR | OFF | 2007/03/07 13:14 |
| S110 | 18   | ("5209803" "5242539" "5389197" "5523261" "5525159" "5779803" "5916454").PN. OR ("6156151").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/07 13:52 |
| S111 | 2    | ("6001267").PN.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB                    | OR | OFF | 2007/03/07 13:53 |

## EAST Search History

|      |     |   |   |    |     |                  |
|------|-----|---|---|----|-----|------------------|
| S112 | 23  | (US-20030146396-\$ or US-20020191166-\$ or US-20020191163-\$ or US-20040050326-\$ or US-20050208217-\$).did. or (US-5656123-\$ or US-5685914-\$ or US-6435428-\$ or US-6019848-\$ or US-5884009-\$ or US-6886491-\$ or US-5998766-\$ or US-6450803-\$ or US-5314574-\$ or US-6291800-\$ or US-6380518-\$ or US-6869641-\$ or US-7123343-\$ or US-6987278-\$ or US-6665046-\$ or US-6555834-\$ or US-6156151-\$ or US-6631692-\$).did.                                   | US-PGPUB;<br>USPAT  | OR | ON  | 2007/03/07 17:25 |
| S113 | 2   | ("5534073").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB                    | OR | OFF | 2007/03/17 09:49 |
| S114 | 2   | ("7096911").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB                    | OR | OFF | 2007/03/17 09:49 |
| S115 | 3   | ("5629787"   "5771085"   "6254716").PN. OR ("7096911").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/17 09:50 |
| S116 | 25  | (US-20050208217-\$ or US-20030146396-\$ or US-20020191163-\$ or US-20020191166-\$ or US-20040050326-\$).did. or (US-6450803-\$ or US-6631692-\$ or US-6435428-\$ or US-6886491-\$ or US-5656123-\$ or US-5884009-\$ or US-5685914-\$ or US-6019848-\$ or US-5314574-\$ or US-6156151-\$ or US-7123343-\$ or US-6869641-\$ or US-6380518-\$ or US-6291800-\$ or US-5998766-\$ or US-6665046-\$ or US-6555834-\$ or US-6987278-\$ or US-5534073-\$ or US-7096911-\$).did. | US-PGPUB;<br>USPAT  | OR | ON  | 2007/03/17 10:27 |
| S117 | 18  | ("4581520"   "4654509"   "5127365"   "5314574"   "5414244"   "5433791"   "5480492").PN. OR ("5998766").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/17 11:25 |
| S118 | 24  | ("20010055326"   "20020002946"   "20020018190"   "20020112784"   "20020191163"   "20020191166"   "20030006380"   "20030146396"   "4998821"   "5063582"   "5093579"   "5138643"   "5157700"   "5231291"   "5559584"   "5898477"   "5997963"   "6317479"   "6463119"   "6542220"   "6555834"   "6665046"   "6933513"   "6987278").PN. OR ("7123343").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/17 11:38 |
| S119 | 2   | ("6435428").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT<br>; IBM_TDB                    | OR | OFF | 2007/03/17 11:38 |
| S120 | 5   | ("4877757").PN. OR ("6435428").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/17 12:14 |
| S121 | 181 | (wafer or substrate) and (showerhead with exhaust\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2007/03/17 12:14 |
| S122 | 249 | (wafer or substrate) and (showerhead with (exhaust\$3 or purge))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON  | 2007/03/17 12:14 |
| S123 | 11  | ("20010025600"   "20020034862"   "20020036065"   "4854263"   "5370739"   "5902088"   "6174377"   "6301434"   "6331212"   "6524955"   "6630053").PN. OR ("6921556").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/17 12:53 |
| S124 | 260 | Shinriki-Hiroshi.in. or Kawano-Baiei.in. or Shimizu-Akira.in.   | US-PGPUB;<br>USPAT;<br>USOCR  | OR | ON  | 2007/03/17 12:53 |

## EAST Search History

|      |      |  |   |    |    |                  |
|------|------|--|---|----|----|------------------|
| S125 | 1707 | Shinriki-Hiroshi.in. or Kawano-Baiei.in. or Shimizu-Akira.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2007/03/17 12:53 |
| S126 | 173  | S125 and (reactor or chamber or vessel)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT<br>; IBM_TDB | OR | ON | 2007/03/17 12:54 |
| S127 | 30   | (US-20040050326-\$ or US-20050208217-\$ or US-20050022737-\$ or US-20020191166-\$ or US-20020191163-\$ or US-20030146396-\$ or US-20040216665-\$ or US-20030207032-\$).did. or (US-6019848-\$ or US-5884009-\$ or US-5685914-\$ or US-5656123-\$ or US-6435428-\$ or US-6886491-\$ or US-5534073-\$ or US-6450803-\$ or US-5314574-\$ or US-6631692-\$ or US-6156151-\$ or US-7123343-\$ or US-6869641-\$ or US-6291800-\$ or US-6380518-\$ or US-5998766-\$ or US-6987278-\$ or US-6555834-\$ or US-6665046-\$ or US-7096911-\$).did. or (JP-2005113268-\$).did. or (WO-2006123870-\$).did. | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT                                      | OR | ON | 2007/06/07 10:35 |